

## REMARKS

Objections to Claims

In the Official Action, objection was made to claim 8 for a lack of antecedent basis for "the specified outside diameter" found in line 12 of the claim as presented in the prior amendment. It was recommended that the article be changed to "a" to avoid this issue. However, Applicant notes that the phrase "a specified outside diameter" is found in line 2 of claim 8. Consequently, the article "the" was employed in line 12. It was the intent of Applicant to refer to the same diameter in both places. Consequently, it is believed that claim 8 is properly formed.

Claim 14 was objected to as depending from a cancelled claim. Claim 14 has been amended to depend from independent claim 8.

Substantive Rejection

All claims were rejected in the Official Action under 35 U.S.C. 103 through the combination of Brown, U.S. Patent No. 4,998,691, in view of Rahe, U.S. Patent No. 4,733,471. Reconsideration is requested.

## 1. The Claimed Invention

A concise explanation of the invention was presented in the prior amendment filed with the RCE. Most briefly, the present riser assembly as claimed is to be specifically compatible with CPVC pipe in a manner to avoid subjecting the pipe to over compression. To this end, hemicylindrical sections are brought together to form a circular cylindrical passageway which has a range of diameters not to be more than five percent smaller than the specified outside diameter for the CPVC pipe. Thus, the patent

application and the claims have specifically defined a shape and a size range to allow clamping without over compression.

By having the interior of the clamp defined by diameter and hemicylindrical element, it is to be distinguished from the prior art. Independent claim 8 specifically requires two bars with each bar having "a hemicylindrical section." Further, the hemicylindrical sections are specifically recited as "defining an inside diameter smaller than the specified outside diameter by not to exceed five percent...."

## 2. The Prior Art

It is acknowledged in the Official Action that Brown does not express the inside diameter of the clamp. Reference is then made to Rahe at column 6, lines 24-30. This passage, a further reference at column 9, beginning on line 28 and a reference at column 8, beginning on line 12 is illustrated in Figures 6B and 6C. The mechanism employed is to remove a thin slice from what is assumed to be a hemicylindrical clamp segment. Thus, the clamp has a center of curvature which is outwardly of the mating surface of each clamp section. In that way, a clamping mechanism is provided. However, this mechanism does not then retain the hemicylindrical shape and the clamping is not by an undersized diameter. Rather, the passageway is reduced in one transverse direction. Therefore, Brown and Rahe, taken individually or in combination, do not teach hemicylindrical clamp segments, the formation of a passageway with an undersized diameter and a circular cross section inevitably formed if the segments were each hemicylindrical.

### 3. The Standard

The standard for review was also previously presented in the prior Amendment filed with the RCE. Basic criteria must be met for a *prima facie* case. There must be some suggestion or motivation to combine the references. There also must be a teaching by the combination of such references of all of the claim limitations. A *prima facie* case is not supported by Brown and Rahe.

### 4. Discussion

The present claims, with recitations quoted above, are not directed to taking a slice from the mating surfaces of the clamp segments. Rather, the present invention as set forth in claim 8 is directed to a relative range of diameters as employed in hemicylindrical clamp sections. Thus, when clamped together, the sections inevitably define a circular passage. This circular passage has a range of diameters relative to "the specified outside diameter." In this way, a more uniform clamping is accomplished which is not simply through compression in one direction, i.e., perpendicular to the mating surfaces, as is true of Rahe. Thus, the combination of Brown and Rahe do not teach all of the limitations of the present claims. A *prima facie* case based on these references fails a first of the basic criteria.

Further, the Brown patent and the Rahe patent are not appropriately combined. The device of Brown is designed for supporting horizontally extending pipe. Whether or not there is any actual gripping of the pipe longitudinally in the associated clamps is never mentioned. The orientation of the pipes is referenced in a few places with the invention described in the Summary as piping support where the piping "comprises

horizontal pipe headers and laterals that are typically located near the concrete bottoms of circular or rectangular concrete tanks." It further recites in the Summary that the "supports are designed to resist either upward or downward loads." Brown also references six other patents in the disclosure. Every one of those patents is directed to the support of horizontally extending pipe or other elements.

Rahe, on the other hand, is directed to a mobile tool with a clamp to join tubular elements end to end. The uses between Brown and Rahe are completely unrelated. Further, the demands on the clamping members are also unrelated. Where Brown is directed to supporting horizontal piping, Rahe is retaining two cylindrical elements end to end under a variety of loads including bending and tension. There is no support member laterally retaining the clamp of Rahe to in turn support a pipe or even the two end to end cylindrical elements as in Brown. Given the completely different uses and demands contemplated by Brown and Rahe, there can be no motivation to combine.

In reviewing these two references, there is absolutely no teaching or suggestion that the teachings of Rahe should be incorporated into Brown. Rahe is simply not needed to satisfy the requirements of Brown to hold horizontal pipe. The entire system of Brown is not intended to retain cylindrical elements end to end and apparently has no concern regarding a longitudinal gripping of the supported pipe. Therefore, there is no basis within these two references to suggest a combination. As such, the references fail to support a *prima facie* case of obviousness as to a second required criteria as well.

Conclusion

The clamping structure and mechanism of the present invention employing hemicylindrical clamping elements and smaller diameters defining the resulting circular passageway are novel. The application of Brown and Rahe, taken independently or in combination, fail to support a *prima facie* case of obviousness based on two required criteria, a need for every limitation in the combination and a need for teaching, suggestion or motivation to combine references. Further, the operation of the subject matter of the present claims to allow the controlled installation and retention of a vertical CPVC pipe is not remotely suggested, satisfied or contemplated by Brown and Rahe.

The claimed invention is novel, useful in satisfying a need not otherwise shown to be realized by other mechanisms and unobvious in light of the applied art which fails to meet two essential criteria for a *prima facie* case. Therefore, it is asserted that the present application is properly formed and that the claims recite patentable subject matter. Consequently, a notice of allowance is earnestly solicited.

Respectfully submitted,

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